

## ABSTRACT

A disk drive having write current and write current boost amounts that can be altered in response to changes in temperature is provided. According to an embodiment of the present invention, the amount of write current and/or write current boost applied in a disk drive is increased as the temperature of the disk drive decreases, and is decreased as the temperature of the disk drive increases. The amount by which the write current and/or write current boost is varied from a nominal amount is controlled to ensure that data is reliably encoded on the magnetic storage disk, while avoiding the overriding of data in adjacent tracks. In addition, the present invention controls the amount by which the write current and/or write current boost is varied to avoid pole tip protrusion and the creation of write induced instabilities within the transducer head. Accordingly, the present invention provides a disk drive that avoids temporary or permanent data errors caused by overheating the transducer head.